

Serial No.: 10/018,976

IN THE DRAWINGS:

Applicant submits herewith Replacement Sheets of drawings including Figures 1 and 2. As required by the Examiner, these sheets of drawings reflect corrections to Figures 1 and 2 to provide the unlabeled rectangular boxes with descriptive text labels.

REMARKS

I. Status Summary

Claims 1-9 are pending in the present application and claims 1-9 stand rejected. Claims 1, 2 and 6 have been amended herein. Therefore, upon entry of this amendment, claims 1-9 will remain pending. No new matter has been introduced by the present Amendment. Reconsideration of the application as amended and based on the arguments set forth hereinbelow is respectfully requested.

II. Drawings

The drawings stand objected to based on the contention that the unlabeled rectangular boxes shown in the drawings, Figures 1 and 2, should be provided with descriptive text labels.

Applicant submits herewith Replacement Sheets of drawings including Figures 1 and 2. As required by the Examiner, these sheets of drawings reflect corrections to Figures 1 and 2 to provide the unlabeled rectangular boxes with descriptive text labels. Applicant notes that Figures 1 and 2 as originally filed were on one sheet of drawings, but due to the inclusion of text labels, Figures 1 and 2 as presented herewith are on two separate sheets.

III. Specification

The Examiner objected to the disclosure because of informalities. In particular, the Examiner contends that the specification should follow a preferred layout of a utility application.

Applicant submits herewith a Substitute Specification in Clean Copy form and in Version with Markings to Show Changes Made form. The Substitute Specification incorporates amendments to the specification submitted with the original application filed on December 18, 2001 and amendments to the specification (Abstract) submitted with an Amendment A filed on July 28, 2005. The Substitute Specification additionally places the specification in a preferred layout as suggested by the Examiner.

In view of the Substitute Specification submitted herewith, it is respectfully submitted that the objections to the disclosure should be withdrawn.

IV. Claim Objections

Claims 1, 2, and 6-8 stand objected to. The Examiner states that claim 1, line 4 recites "with it" and "in which case" and in claims 2 and 6, lines 2 and 3, respectively, "can be" must be replaced with "are". Claims 7 and 8 depend from objected to claim 6.

Claims 1, 2 and 6 have been amended herein in order to clarify these wording informalities. Applicant therefore respectfully requests that the objection to claims 1, 2, and 6-8 be withdrawn and the claims allowed at this time.

V. Claim Rejections Under 35 U.S.C. § 112

Claim 6 stands rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The Examiner states that claim 6 recites the limitation "the bandpass filter flanks" in line 3 but that there is insufficient antecedent basis for this limitation in the claim.

As indicated hereinabove, claim 6 has been amended to more particularly define the present subject matter and to provide proper antecedent basis for "bandpass filter flanks". Based on the foregoing, applicant respectfully requests that the rejection of claim 6 under 35 U.S.C. § 112, second paragraph, be withdrawn and the claim allowed at this time.

VI. Claim Rejections Under 35 U.S.C. § 103

Claims 1-9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,058,047 to Chung (hereinafter, "Chung") in view of U.S. Patent No. 6,389,069 to Mathe (hereinafter, "Mathe"). These rejections are respectfully traversed.

Claim 1 recites a codec circuit having a programmable digital bandpass filter for matching the filter characteristics of the codec circuit to a transmitted PCM signal. Claim 1 also recites that the bandpass filter includes at least one programmable digital high-pass filter at least one programmable digital low-pass filter. The high-pass and low-pass filters are connected in series. Figure 2 illustrates a block diagram of an exemplary programmable digital bandpass filter **6** including a programmable digital high-pass filter **29** connected in series with a programmable digital low-pass filter **30**. Claim 1 further recites that setting filter coefficients of the high-pass and low-pass filters can each be set by means of a signal identification device for identification of a PCM signal transmitted through the codec circuit and as a function of the transmitted PCM signal in order to vary a bandpass filter characteristic for the programmable digital bandpass filter. Referring again to the exemplary bandpass filter of Figure 2, setting filter coefficients of high-pass filter **29** and low-pass filter **30** can be stored in

memory devices **32** and **33**, respectively. The setting filter coefficients stored in memory devices **32** and **33** can be reprogrammed by a signal identification device **24**.

Chung discloses a system and method for generating coefficients for use in a digital filter. The coefficients are generated utilizing an iterative adaptive process employing a least mean square process wherein the filter coefficients are updated by an amount during each iteration dependent upon the stochastic average of the gradient generated during prior iterations. The response of a filter standard to an applied input signal is combined with a response of the adaptive filter coefficients to generate, during each iteration, an error signal. If the error signal is less than a predetermined standard, the iterative process is stopped, and the last used filter coefficients are utilized as the final filter coefficients of the digital filter.

In particular, Chung discloses a filter characteristic processor, which provides a desired filter characteristic in response to inputted input information including line impedance, desired terminating impedance, actual terminating impedance, etc. (see column 5, lines 42-50 of Chung). However, all of the inputted input information does not relate to a PCM signal transmitted through the codec circuit. As such, Chung fails to teach or suggest a signal identification device for identifying such a PCM signal.

The Examiner relies upon Mathe to allegedly suggest the signal identification device not taught or suggested in Chung. Applicant respectfully submits that Mathe fails to overcome the shortcomings of Chung. Mathe is directed to a low power programmable digital filter adapted for use with a telecommunications system transceiver. The digital filter includes a first finite impulse response filter section for

receiving an input signal and having a first transfer function. An infinite impulse response filter section is connected to the first finite impulse response filter section and has a second transfer function. A second finite impulse response filter section is connected to the infinite impulse response filter section and outputs a filtered output signal in response the receipt of the input signal by the programmable digital filter. The second finite impulse response filter section has a third transfer function. A programmable coefficient is included in the first, second, and/or the third transfer function. In a specific embodiment, the first transfer function has a first programmable coefficient. The second transfer function has a second programmable coefficient and the third transfer function has a third programmable coefficient. The programmable digital filter further includes a processor for providing a control signal. A memory provides the first, second, and/or third programmable coefficients in response to the control signal. A high-pass filter section provides input to the first finite impulse response filter section. A multiplexer selectively bypasses the high-pass filter in response to a bypass control signal from the processor. The processor generates the bypass control signal in response to bias occurring in the input signal. In the illustrative embodiment, the first finite impulse response filter section includes a first jammer filter, a second jammer filter, and a third jammer filter for removing telecommunications jammer signals in the input signal. The first, second, and third jammer filters have first, second, and third jammer filter transfer functions with the first programmable coefficient, a fourth programmable coefficient, and a fifth programmable

coefficient, respectively. The infinite impulse response filter section includes a first equalization filter and a second equalization filter.

In applying Mathe to the present claim 1, the Examiner considers microprocessor **24** of Mathe to perform signal identification for identification of a PCM signal transmitted through the codec circuit. Referring to column 5, lines 5-16 of Mathe, a filter characteristic depends on a programmable coefficient b_1 , which is provided by microprocessor **24** (and microprocessor memory **26**). The coefficient b_1 is chosen differently for CDMA and FM signals. There is no teaching or suggestion in Mathe that the microprocessor first identifies the incoming PCM signal and then the microprocessor selects the ranges of the coefficient in accordance with the identified PCM signal. As such, there is no teaching or suggestion in Mathe, even if combined with the teachings of Chung, of the presently claimed subject matter.

Applicant respectfully submits that, in view of the above amendments and remarks, Chung and Mathe, either alone or in combination, do not teach or suggest all of the elements recited by amended claim 1. Accordingly, applicant respectfully requests that the rejection of claims under 35 U.S.C. §103(a) be withdrawn and the claim allowed at this time.

Claims 2-9 depend from claim 1. Therefore, the comments presented above relating to claim 1 apply equally to claims 2-9. Accordingly, applicant respectfully submits that claims 2-9 should be allowed and the rejections withdrawn for the same reasons provided above for claim 1.

CONCLUSION

In light of the above Amendments and Remarks, it is respectfully submitted that the present application is now in proper condition for allowance, and an early notice to such effect is earnestly solicited.

If any small matter should remain outstanding after the Patent Examiner has had an opportunity to review the above Amendments and Remarks, the Patent Examiner is respectfully requested to telephone the undersigned patent attorney in order to resolve these matters and avoid the issuance of another Official Action.

DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any fees associated with the filing of this correspondence to Deposit Account No. **50-0426**.

Respectfully submitted,

JENKINS, WILSON, TAYLOR & HUNT, P.A.

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REJ/EEM/gwc

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